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	Specific Mitigation Strategy	Existing Program	Very High	High	Moderate	Under Study	Not Applicable, Not Appropriate, or Not Gost Effective	Considered	Responsible Agency or Department (Required if Existing Program, Very High, High, or Under Study)	Ordinance or Resolution # (if existing program), Estimated Cost and Possible Funding Agency (if high priority), Estimated Date of Completion (if study) OR Other Comments
HSNG -	- a - Multi-Hazard									
disc enf tho ma the on htty loca 2) Cre arc und like der alte	aware of past problems of inadequate hazard sclosure and work with real estate agents to improve forcement of real estate disclosure requirements for ose hazards covered by this plan, for example, by aking those agents and the disclosure firms aware of a hazard maps incorporated in this plan and available the ABAG web site at tp://quake.abag.ca.gov/mitigation, as well as cally developed maps.  The eate incentives for owners of historic or chitecturally significant residential buildings to dertake mitigation to levels that will minimize the elihood that these buildings will need to be molished after a disaster, particularly if those erations conform to the federal Secretary of the erior's Guidelines for Rehabilitation.							X		
	- b - Single-Family Homes Vulnerable to Earthquakes									
1) Util incl volu bra wal rep Cha Cal Eng (SE	lize or recommend adoption of a retrofit standard that cludes standard plan sets and construction details for luntary bolting of homes to their foundations and acing of outside walls of crawl spaces ("cripple" alls), such as that being developed by a committee presenting the East Bay-Peninsula-Monterey apters of the International Code Council (ICC), alifornia Building Officials (CALBO), the Structural gineers Association of Northern California EAONC), the Northern California Chapter of the arthquake Engineering Research Institute (EERI-NC), d ABAG's Earthquake Program.	X							City of Fremont Building and Safety Division	

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	Specific Mitigation Strategy	Existing Program	Very High	High	Moderate	Under Study	Not Applicable, Not Appropriate, or Not Cost Effective	Not Yet Considered	Responsible Agency or Department (Required if Existing Program, Very High, High, or Under Study)	Ordinance or Resolution # (if existing program), Estimated Cost and Possible Funding Agency (if high priority), Estimated Date of Completion (if study) OR Other Comments
ŕ	Require engineered plan sets for retrofitting of heavy two-story homes with living areas over garages, as well as for split level homes, until standard plan sets and construction details become available.	X							City of Fremont Building and Safety Division	
3)	Require engineered plan sets for retrofitting of homes on steep hillsides.	X							City of Fremont Building and Safety Division	
ŕ	Encourage local government building inspectors to take classes on a periodic basis (such as the FEMA-developed training classes offered by ABAG) on retrofitting of single-family homes.	X							City of Fremont Building and Safety Division	
5)	Encourage private retrofit contractors and home inspectors doing work in your area to take retrofit classes on a periodic basis(such as the FEMA-developed training classes offered by ABAG) on retrofitting of single-family homes.							X		
6)	Conduct demonstration projects on common existing housing types demonstrating structural and nonstructural mitigation techniques as community models for earthquake mitigation.							X		
7)	Provide retrofit classes or workshops for homeowners.							Χ		
	Establish tool-lending libraries with common tools needed for retrofitting for use by homeowners with appropriate training.							X		
	Provide financial incentives to owners of applicable homes to retrofit.							Χ		
	NG - c - Soft-Story Multifamily Residential Structures Vuln		le to	Ear	thqua	akes				
1)	Require engineered plan sets for voluntary or mandatory soft-story retrofits until a standard plan set and construction details become available.	X							City of Fremont Building and Safety Division	

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Specific Mitigation Strategy	Existing Program	Very High	High	Moderate	Under Study	Not Applicable, Not Appropriate, or Not Cost Effective	Not Yet Considered	High, High, or Under Study)	Ordinance or Resolution # (if existing program), Estimated Cost and Possible Funding Agency (if high priority), Estimated Date of Completion (if study) OR Other Comments
2) Adopt the 2003 International Existing Building Code, the 1997 UBC, or the latest applicable code standard for the design of voluntary or mandatory soft-story building retrofits.	Х							City of Fremont Building and Safety Division	
local government staff, engineers, and contractors on soft-story retrofit procedures and incentives using materials such as those developed by ABAG (see <a href="http://quake.abag.ca.gov/fixit">http://quake.abag.ca.gov/fixit</a> ) and the City of San Jose.	X							City of Fremont Building and Safety Division	
4) Conduct an inventory of existing or suspected soft-story residential structures.	Х							City of Fremont Building and Safety Division	
5) Use the soft-story inventory to require owners to inform all existing tenants that they live in this type of building and the standard to which it may have been retrofitted, as well as require owners to inform tenants that they will live in this type of building prior to signing a lease.							X		
6) Use the soft-story inventory to require owners to inform all existing tenants that they should be prepared to live elsewhere following an earthquake if the building has not been retrofitted.							X		
7) Investigate and adopt appropriate financial, procedural, and land use incentives for owners of soft-story buildings to facilitate retrofit such as those developed by ABAG (see <a href="http://quake.abag.ca.gov/fixit">http://quake.abag.ca.gov/fixit</a> ).							X		
Explore development of local ordinances or State regulations to require or encourage owners of soft-story structures to strengthen them.	X							City of Fremont Building and Safety Division	

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	Specific Mitigation Strategy	Existing Program	Very High	High	Moderate	Under Study	Not Applicable, Not Appropriate, or Not Gost Effective	•	Responsible Agency or Department (Required if Existing Program, Very High, High, or Under Study)	Ordinance or Resolution # (if existing program), Estimated Cost and Possible Funding Agency (if high priority), Estimated Date of Completion (if study) OR Other Comments
	strengthening soft-story structures.	X							City of Fremont Building and Safety Division	
	NG - d - Unreinforced Masonry Housing Stock									
1)	Continue to actively implement existing State law that requires cities and counties to maintain lists of the addresses of unreinforced masonry buildings and inform property owners that they own this type of hazardous structure.	X							City of Fremont Building and Safety Division	With one exception consisting of a commercial building that had a nonconforming residential use, all unreinforced masonry buildings in Fremont have been retrofitted.
	Accelerate retrofitting of unreinforced masonry structures that have not been retrofitted, for example, by (a) actively working with owners to obtain structural analyses of their buildings, (b) helping owners obtain retrofit funding, (c) adopting a mandatory versus voluntary, retrofit program, and/or (d) applying penalties to owners who show inadequate efforts to upgrade these buildings.						X		City of Fremont Building and Safety Division	With one exception consisting of a commercial building that had a nonconforming residential use, all unreinforced masonry buildings in Fremont have been retrofitted.
	Require owners to inform all existing tenants that they live in this type of building and the standard to which it may have been retrofitted, as well as require owners to inform tenants that they will live in this type of building prior to signing a lease.							X		
4)	Require owners to inform all existing tenants that they should be prepared to live elsewhere following an earthquake even if the building has been retrofitted, for it has probably been retrofitted to a life-safety standard, not to a standard that will allow occupancy following major earthquakes.							X		

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Specific Mitigation Strategy	Existing Program	Very High	High		Under Study	Not Applicable, Not Appropriate, or Not Cost Effective	Not Yet Considered		Ordinance or Resolution # (if existing program), Estimated Cost and Possible Funding Agency (if high priority), Estimated Date of Completion (if study) OR Other Comments
HSNG - e - Other Privately-Owned Structurally Suspicious R	eside	ntial	Buil	dings	s an	id Earthqu	ıake	s	
1) Identify and work toward tying down mobile homes used as year-round permanent residences using an appropriate cost-sharing basis (for example, 75% grant, 25% owner).						X			The City has no jurisdiction over mobile homes.
Inventory non-ductile concrete, tilt-up concrete, and other privately-owned structurally suspicious residential buildings.	Х							City of Fremont Building and Safety Division	The City has a mandatory tilt up ordinance in effect (Ord. No. 2405). There is no program for non-ductile concrete.
3) Adopt the 2003 International Existing Building Code, the 1997 UBC, or the latest applicable code standard for the design of voluntary or mandatory retrofit of seismically vulnerable buildings.	X							City of Fremont Building and Safety Division	
4) Adopt one or more of the following strategies as incentives to encourage retrofitting of privately-owned structurally deficient residential buildings: (a) waivers or reductions of permit fees, (b) below-market loans, (c) local tax breaks, (d) grants to cover the cost of retrofitting or of a structural analysis, (e) land use and procedural incentives, or (f) technical assistance.	Х							City of Fremont Building and Safety Division	
HSNG - f - New Construction and Earthquakes									
Continue to require that all new housing be constructed in compliance with structural requirements of the most recently adopted version of the California Building Code.	X							City of Fremont Building and Safety Division	

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	Specific Mitigation Strategy	Existing Program	Very High	High	Moderate	Under Study	Not Applicable, Not Appropriate, or Not Cost Effective	Not Yet Considered	Responsible Agency or Department (Required if Existing Program, Very High, High, or Under Study)	Ordinance or Resolution # (if existing program), Estimated Cost and Possible Funding Agency (if high priority), Estimated Date of Completion (if study) OR Other Comments
	Conduct appropriate employee training and support continued education to ensure enforcement of building codes and construction standards, as well as identification of typical design inadequacies of housing and recommended improvements.	X							City of Fremont Building and Safety Division	
	NG - g - Wildfire and Structural Fires									
	Increase efforts to reduce hazards in existing development in high wildfire hazard areas (identified as wildland-urban-interface fire-threatened communities or in areas exposed to high-to-extreme fire threat) through improving engineering design and vegetation management for mitigation, appropriate code enforcement, and public education on defensible space mitigation strategies.	X							City of Fremont Fire Department and Building and Safety Division	The City has a special construction requirement in fire hazard zones.
2)	Tie public education on defensible space and a comprehensive defensible space ordinance to a field program of enforcement.							X		
	Require that new homes in wildland-urban-interface fire-threatened communities or in areas exposed to high-to-extreme fire threat be constructed of fire-resistant building materials (including roofing and exterior walls) and incorporate fire-resistant design features (such as minimal use of eaves, internal corners, and open first floors) to increase structural survivability and reduce ignitability. <b>Note</b> - See Structural Fire Prevention Field Guide for Mitigation of Wildfires at http://osfm.fire.ca.gov/structural.html.	X							City of Fremont Building and Safety Division	The City has a special construction requirement in fire hazard zones.
4)	Develop financial incentives for homeowners to be "model" defensible space homes in neighborhoods that are wildland-urban- interface fire-threatened communities or in areas exposed to high-to-extreme fire threat.							X		

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	Specific Mitigation Strategy	Existing Program	Very High	High	Moderate	Under Study	Not Applicable, Not Appropriate, or Not Gost Effective	Considered	Responsible Agency or Department (Required if Existing Program, Very High, High, or Under Study)	Ordinance or Resolution # (if existing program), Estimated Cost and Possible Funding Agency (if high priority), Estimated Date of Completion (if study) OR Other Comments
	Consider fire safety, evacuation, and emergency vehicle access when reviewing proposals to add secondary units or additional residential units in wildland-urban- interface fire-threatened communities or in areas exposed to high-to-extreme fire threat.	X							Department	
	Adopt and/or amend, as needed, updated versions of the <i>California Building and Fire Codes</i> so that optimal fire-protection standards are used in construction and renovation projects.	Х							City of Fremont Building and Safety Division	
7)	Create a mechanism to enforce provisions of the <i>California Building and Fire Codes</i> and local housing codes that require the installation of smoke detectors and/or fire-extinguishing systems by making installation a condition of (a) finalizing a permit for any work on existing properties valued at over a fixed amount, such as \$500 or \$1000, and/or (b) a condition for the transfer of property if these changes are determined cost-effective strategies.	X							City of Fremont Building and Safety Division	The City has a stringent fire sprinkler ordinance (Ord. No. 2485)
8)	Work to ensure a reliable source of water for fire suppression in rural-residential areas through the cooperative efforts of water districts, fire districts, and residents.						X			
9)	Expand vegetation management programs in wildland- urban- interface fire-threatened communities or in areas exposed to high-to-extreme fire threat to more effectively manage the fuel load through roadside collection and chipping, mechanical fuel reduction equipment, selected harvesting, use of goats or other organic methods of fuel reduction, and selected use of controlled burning.	X							City of Fremont Fire Department	

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	Specific Mitigation Strategy	Existing Program	Very High	High	Moderate	Under Study	Not Applicable, N Appropriate, or N Cost Effective	Not Yet Considered	Responsible Agency or Department (Required if Existing Program, Very High, High, or Under Study)	existing program), Estimated Cost and Possible Funding Agency (if high priority), Estimated Date of Completion (if study) OR Other Comments
10)	Promote the installation of early warning fire alarm							Χ		
	systems in homes wildland-urban-interface fire-									
	threatened communities or in areas exposed to high-to-									
	extreme fire threat connected to fire department									
	communication systems.									
11)	Establish a Fire Hazard Abatement District to fund							X		
	reduction in fire risk of existing properties through									
	vegetation management that includes reduction of fuel									
12)	loads, use of defensible space, and fuel breaks.  Work with residents in rural-residential areas to ensure	X							City of Fremont Fire	
12)	adequate access and evacuation in wildland-urban-	^							Department	
	interface fire-threatened communities or in areas								рераниени	
	exposed to high-to-extreme fire threat.									
13)	Require fire sprinklers in new homes located more than	Χ							City of Fremont Fire	Ord. No. 2485
,	1.5 miles or a 5-minute response time from a fire station								Department and Building	0.0
	or in an identified high hazard wildland-urban-interface								and Safety Division	
	wildfire area.								,	
14)	Require fire sprinklers in all new or substantially	Χ							City of Fremont Fire	Ord. No. 2485
	remodeled multifamily housing, regardless of distance								Department and Building	
	from a fire station.								and Safety Division	
15)	Require sprinklers in all mixed use development to	Χ							City of Fremont Fire	Ord. No. 2485
.0)	protect residential uses from fires started in non-	,							Department and Building	0.0.110.2.100
	residential areas.								and Safety Division	
									-	
16)	Compile a list of high-rise and high-occupancy buildings	X							City of Fremont Fire	
	which are deemed, due to their age or construction								Department	
	materials, to be particularly susceptible to fire hazards,									
	and determine an expeditious timeline for the fire-safety									
17\	inspection of all such structures.	~							City of Framont Fire	
17)	Conduct periodic fire-safety inspections of all multi-	Х							City of Fremont Fire Department	
	family buildings, as required by State law.								рерапшени	

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	Specific Mitigation Strategy	Existing Program	Very High	High	Moderate	Under Study	Not Applicable, Not Appropriate, or Not Cost Effective	Not Yet Considered	Responsible Agency or Department (Required if Existing Program, Very High, High, or Under Study)	Ordinance or Resolution # (if existing program), Estimated Cost and Possible Funding Agency (if high priority), Estimated Date of Completion (if study) OR Other Comments
18)	Ensure that fire-preventive vegetation-management techniques and practices for creek sides and high-slope areas do not contribute to the landslide and erosion hazard.	X							City of Fremont Fire Department	
19)	Create a mechanism to require the bracing of water heaters and flexible couplings on gas appliances, and/or (as specified under "a. Single-family homes vulnerable to earthquakes" above) the bolting of homes to their foundations and strengthening of cripple walls to reduce fire ignitions due to earthquakes.							X		
,	Work with the State Fire Marshall, the California Seismic Safety, PEER, and other experts to identify and manage gas-related fire risks of soft-story residential or mixed use buildings that are prone to collapse and occupant entrapment consistent with the natural gas safety recommendations of Seismic Safety Commission Report SSC-02-03. <b>Note</b> - See http://www.seismic.ca.gov/pub/CSSC_2002-03_Natural%20Gas%20Safety.pdf. <b>Also note</b> - any values that are installed may need to have both excess flow and seismic triggers ("hybrid" valves).							X		
1)	NG - h - Flooding  To reduce flood risk, and thereby reduce the cost of flood insurance to property owners, work to qualify for the highest-feasible rating under the Community Rating System of the National Flood Insurance Program.	X							City of Fremont Engineering Division	
2)	Balance the housing needs of residents against the risk from potential flood-related hazards.	Х							City of Fremont Engineering Division	

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	Specific Mitigation Strategy	Existing Program	Very High	High	Moderate	Under Study	Not Applicable, Not Appropriate, or Not Cost Effective	Not Yet Considered	Responsible Agency or Department (Required if Existing Program, Very High, High, or Under Study)	Ordinance or Resolution # (if existing program), Estimated Cost and Possible Funding Agency (if high priority), Estimated Date of Completion (if study) OR Other Comments
3)	Ensure that new development pays its fair share of improvements to the storm drainage system necessary to accommodate increased flows from the development.						X			
	Provide sandbags and plastic sheeting to residents in anticipation of rainstorms, and deliver those materials to the disabled and elderly upon request.	Х							City of Fremont Maintenance Division	
5)	Provide public information on locations for obtaining sandbags and/or deliver those sandbags to those various locations throughout a city and/or county prior to and/or during the rainy season.	X							City of Fremont Maintenance Division	
6)	Apply floodplain management regulations for development in the floodplain and floodway.	X							City of Fremont Engineering Division	
7)	Ensure that new subdivisions are designed to reduce or eliminate flood damage by requiring lots and rights-of-way are laid out for the provision of approved sewer and drainage facilities, providing on-site detention facilities whenever practicable.	X							City of Fremont Engineering and Planning Divisions	
8)	Encourage home and apartment owners to participate in home elevation programs.							Χ		
9)	As funding opportunities become available, encourage home and apartment owners to participate in acquisition and relocation programs for areas within floodways.							X		
10)	Encourage owners of properties in a floodplain to consider purchasing flood insurance. For example, point out that most homeowners' insurance policies do not cover a property for flood damage.							Х		

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	Specific Mitigation Strategy	Existing Program	Very High	High	Moderate	Under Study	Not Applicable, Not Appropriate, or Not Cost Effective	Not Yet Considered	Responsible Agency or Department (Required if Existing Program, Very High, High, or Under Study)	Ordinance or Resolution # (if existing program), Estimated Cost and Possible Funding Agency (if high priority), Estimated Date of Completion (if study) OR Other Comments
_	NG - i - Landslides and Erosion									
1)	Increase efforts to reduce landslides and erosion in existing and future development by improving appropriate code enforcement and use of applicable standards, such as those appearing in the California Building Code, California Geological Survey Special Report 117 – Guidelines for Evaluating and Mitigating Seismic Hazards in California, American Society of Civil Engineers (ASCE) report Recommended Procedures for Implementation of DMG Special Publication 117: Guidelines for Analyzing and Mitigating Landslide Hazards in California, and the California Board for Geologists and Geophysicists Guidelines for Engineering Geologic Reports. Such standards should cover excavation, fill placement, cut-fill transitions, slope stability, drainage and erosion control, slope setbacks, expansive soils, collapsible soils, environmental issues, geological and geotechnical investigations, grading plans and specifications, protection of adjacent properties, and review and permit issuance.	X							City of Fremont Building and Safety and Engineering Divisions	
Í	Increase efforts to reduce landslides and erosion in existing and future development through continuing education of design professionals on mitigation strategies.							X		
	NG - j - Building Reoccupancy									
1)	Develop and enforce an ordinance for disaster- damaged structures to ensure that residential buildings are repaired in an appropriate and timely manner and retrofitted concurrently to avoid a recurrence.	X							City of Fremont Building and Safety Division	Ord. No. 2182

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	NG - k - Public Education									
1)	Provide information to residents of your community on the availability of interactive hazard maps showing your community on ABAG's web site.							X		
ŕ	(such as developed by FEMA and the American Red Cross), conduct workshops, and/or provide outreach encouraging residents to have family disaster plans that include drop-cover-hold earthquake drills, fire and storm evacuation procedures, and shelter-in-place emergency quidelines.								City of Fremont Fire Department	
3)	Better inform residents of comprehensive mitigation activities, including elevation of appliances above expected flood levels, use of fire-resistant roofing and defensible space in high wildfire threat and wildfire-urban-interface areas, structural retrofitting techniques for older homes, and use of intelligent grading practices through workshops, publications, and media announcements and events.	X							City of Fremont Fire Department	
4)	Develop a public education campaign on the cost, risk, and benefits of earthquake, flood, and other hazard insurance.							Χ		
ŕ	Month and the 1906 earthquake), September (9/11), and October (Loma Prieta earthquake and Oakland Hills fire), to remind the public on safety and security mitigation activities.	Х							Citywide effort	
6)	Sponsor the formation and training of Community Emergency Response Teams (CERT) training. [Note – these programs go by a variety of names in various cities and areas.]	Х							City of Fremont Fire Department	

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	Specific Mitigation Strategy	Existing Program	Very High	High	Moderate	Under Study	Not Applicable, Not Appropriate, or Not Cost Effective	Not Yet Considered	Responsible Agency or Department (Required if Existing Program, Very High, High, or Under Study)	Ordinance or Resolution # (if existing program), Estimated Cost and Possible Funding Agency (if high priority), Estimated Date of Completion (if study) OR Other Comments		
7)	Include flood fighting technique session based on California Department of Water Resources training to the list of available public training classes offered by CERT.							X				
	Institute the neighborhood watch block captain and team programs outlined in the Citizen Corps program guide.	X							City of Fremont Police Department			
9)	Assist residents in the development of defensible space through the use of, for example, "tool libraries" for weed abatement tools, roadside collection and/or chipping services (for brush, weeds, and tree branches) in wildland-urban-interface fire-threatened communities or in areas exposed to high-to-extreme fire threat.							X				
10)	Train homeowners to locate and shut off gas valves if they smell or hear gas leaking.	Х							City of Fremont Fire Department			
11)	Distribute NOAA weather radios to high-risk, limited-income families living in flood hazard areas.							Χ				
12)	Develop a program to provide at-cost NOAA weather radios to residents of flood hazard areas.							Χ				
,	Make use of the materials on the ABAG web site at http://quake.abag.ca.gov/fixit and other web sites to increase residential mitigation activities related to earthquakes. (ABAG plans to continue to improve the quality of those materials over time.)							Х				
14)	Develop a "Maintain-a-Drain" campaign, similar to that of the City of Oakland, encouraging businesses and residents to keep storm drains in their neighborhood free of debris.							X				

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		Priority (CHECK ONLY ONE)					NLY ONE	Ξ)			
Specific Mitigation Strategy		Existing Program	Very High	High	Moderate	Under Study	Not Applicable, Not Appropriate, or Not Cost Effective	Not Yet Considered	Responsible Agency or Department (Required if Existing Program, Very High, High, or Under Study)		
15) Encourage the formation of a community- and						X			City of Fremont Fire		
neighborhood-based approach to wildfire edu- action through local Fire Safe Councils and th Wise Program.									Department		
16) Inform shoreline-property owners of the possi term economic threat posed by rising sea level	_							Χ			
17) Develop and distribute culturally appropriate r related to disaster mitigation and preparednes as those on the <a href="http://www.preparenow.org">http://www.preparenow.org</a> w	ss, such					X			City of Fremont Fire Department		